

Amendments to the claims:

This listing of claims replaces all prior versions, and listings, of claims in the application.

Listing of claims:

Claims 1-29 (canceled).

30 (new). An appliance for holding a sample during heat decomposition of the sample, the appliance comprising, in the absence of firing means:

- a) a heating section in the form of a tube open at only one of two opposing ends, having a length between said opposing ends of at least 10 cm, and being molded of quartz, hard glass, or ceramic that withstands (i) corrosive gases, (ii) oxidative corrosion, and (iii) heating to a temperature of at least 600°C and
- b) an introducing section that (i) cooperates with the open end of the tube and, thereby, seals the open end, and (ii) includes means for introducing liquid into the heating section after the introducing section seals the open end of the tube; and

wherein the appliance contains no combustion assistant or source of heat, heating the appliance being effected only by external means.

31 (new). The appliance of claim 30 wherein said open end of said heating section and said introducing section cooperate through a ground surface of said heating section meeting a corresponding ground surface of said introducing section.

32 (new). The appliance of claim 30 wherein said open end of said heating section and said introducing section cooperate through an O-ring annularly disposed about said heating section.

33 (new). The appliance of claim 30 wherein said open end of said heating section and said introducing section cooperate by screwing together through a threaded part of said heating section and a corresponding threaded part of said introducing section.

34 (new). The appliance of claim 30 wherein said means for introducing liquid is a two-way cock or a valve.

35 (new). The appliance of claim 31 wherein said means for introducing liquid is a two-way cock or a valve.

36 (new). The appliance of claim 32 wherein said means for introducing liquid is a two-way cock or a valve.

37 (new). The appliance of claim 46 wherein said means for introducing liquid is a two-way cock or a valve.

38 (new). The appliance of claim 30 wherein said means for introducing liquid comprises a packing or septum that can be pierced by a needle pipe.

39 (new). The appliance of claim 31 wherein said means for introducing liquid comprises a packing or septum that can be pierced by a needle pipe.

40 (new). The appliance of claim 32 wherein said means for introducing liquid comprises a packing or septum that can be pierced by a needle pipe and reseal the heating section after the needle pipe is withdrawn.

41 (new). The appliance of claim 46 wherein said means for introducing liquid comprises a packing or septum that can be pierced by a needle pipe and reseal the heating section after the needle pipe is withdrawn.

42 (new). The appliance of claim 30, further comprising an organic sample disposed in the heating section, wherein the sample is a sulfur-containing sample or a halogen-containing sample.